



RAILROAD COMMISSION OF TEXAS

HEARINGS DIVISION

OIL AND GAS DOCKET NO. 09-0279266

THE APPLICATION OF BOSQUE DISPOSAL SYSTEMS, LLC TO AMEND AN ADMINISTRATIVELY DENIED COMMERCIAL DISPOSAL PERMIT PURSUANT TO STATEWIDE RULE 9 FOR THE BOSQUE SWD LEASE, WELL NO. 1, NEWARK, EAST (BARNETT SHALE) FIELD, PARKER COUNTY, TEXAS

HEARD BY: Andres J. Trevino, P.E. - Technical Examiner
Terry Johnson- Legal Examiner

APPEARANCES:

APPLICANT:

John Soule
Chris Kapcsos

REPRESENTING:

Bosque Disposal Systems, LLC

PROCEDURAL HISTORY

Application Filed:	July 9, 2012
Request for Hearing:	September 14, 2012
Notice of Hearing:	November 21, 2012
Date of Hearing:	December 13, 2012
Proposal For Decision Issued:	February 15, 2013

EXAMINERS' REPORT AND PROPOSAL FOR DECISION

STATEMENT OF THE CASE

Bosque Disposal Systems, LLC ("Bosque") requests to amend its commercial disposal authority pursuant to Statewide Rule 9 for its Bosque SWD Lease, Well No. 1 (Permit No.12552) in the Newark, East (Barnett Shale) Field, Parker County, Texas. Bosque proposes to increase the daily injection volume from 25,000 BWPD to 30,000 BWPD for the disposal well.

On September 18, 2012 Commission staff administratively denied the amended

commercial disposal permit request because the application was inconsistent with a directive from the Railroad Commissioners to staff not to administratively grant injection rates in excess of 25,000 barrels per day for disposal wells injecting into the Ellenburger formation within the Newark, East (Barnett Shale) Field area. The Commission staff did not appear at the hearing to oppose the application.

The examiners recommend that the application for an amended commercial disposal permit pursuant to Statewide Rule 9 be approved.

DISCUSSION OF THE EVIDENCE

Applicant's Evidence

The Bosque SWD Lease, Well No. 1, was drilled to a total depth of 8,800 feet and completed in December 2007 as a commercial disposal well completed in the Ellenburger formation from 8,158 feet to 8,640 feet. A commercial permit No. 12552, issued on October 24, 2007 to Bosque Disposal Systems, LLC authorizes Bosque to dispose of oil and gas wastes into the Ellenburger. The well is located on a 10 acre tract that is situated approximately 5.4 miles northwest of the town of Cresson, Texas.

The well has 9 5/8" surface casing that is set at 996 feet and is cemented to the surface with 425 sacks of cement. The 7" production casing is set at 8,755 feet and is cemented to a depth of 6,500 feet with 268 sacks of cement. The well is equipped with 4 1/2" tubing with a packer set at 8,062 feet. The Texas Commission on Environmental Quality ("TCEQ") recommends that usable-quality ground water be protected to a depth of 820 feet below the land surface.

The permitted disposal interval is the Ellenburger formation between 8,150 feet and 10,000 feet. The permitted disposal volume is 25,000 BWPD with a maximum injection pressure of 3,400 psig. Bosque requests to increase the daily injection volume to 30,000 BWPD. The maximum injection pressure would remain at 3,400 psig.

There are four producing Barnett Shale horizontal wells, one expired permitted location, one permitted disposal well and two plugged gas wells located within a 1/2 mile radius of review of the disposal well. All of the wells have surface casing set and cemented to surface below the base of the usable quality water depth. Most of the wells are completed with true vertical depths within the Barnett Shale averaging 6,500 feet and do not penetrate the disposal interval. There is one commercial disposal well operated by Nabors Completion & Production Service Co. (NWS Ellenburger SWD No.1) that is located approximately 2,200 feet to the northeast of the Bosque SWD No. 1 disposal well. The NWS Ellenburger SWD No.1 is completed in the Ellenburger formation in such a manner that fluids will be confined to the disposal interval and the base of the usable quality water is protected by adequate surface casing. Notice was not initially given to Nabors as an oversight by Bosque. The Examiners sent notice of the application to Nabors' address of record, informing them of the proposed permit amendment and their right to protest. The

letter dated December 14, 2012, provided a copy of the notice of hearing and the W-14. The letter gave Nabors until December 29, 2012 to protest (15 days). No protest by Nabors was received by that date.

Bosque submitted a monthly graph of their injection volumes at the disposal well that showed the disposal facility has been operating near capacity since October 2012. Bosque's projection shows area operator's request for additional disposal demand will exceed the 25,000 BWPD authority in January 2013. The majority of disposal well volume (92%) comes from completed producing wells in the Barnett Shale while the remaining volume (8%) comes from frac fluid flowback. Producing Barnett Shale wells can produce up to 100 to 200 BWPD. Many operators are installing produced water pipeline gathering systems that pipe water directly to the disposal well to eliminate truck traffic and reduce disposal costs. Bosque has forecasted additional disposal demand as a pipeline being built for an operator will bring in approximately 4,000 BWPD in new disposal demand. The pipeline will be completed in January or February 2013. As a result of the increasing completions and increasing water production in the area, Bosque is requesting additional capacity to meet market demand. Area operators and trucking companies believe that an increase in capacity at Bosque's disposal facility will be used and would decrease the amount of saltwater hauling to other disposal well sites further away.

A review of the operating pressures of the disposal well indicates the well will be able to handle additional capacity without exceeding permitted injection pressure.

The Commission has previously approved increasing the disposal capacity of numerous disposal wells in the Newark, East (Barnett Shale) Field from 25,000 to 30,000 BWPD in the past. The wells include the Metro SWD Lease, Well No. 1 by Order issued in Oil & Gas Docket 09-0268543 dated July 26, 2011, the Rose Lease, Well No. 1, the Luna Lease, Well No. 2, and the Sophia SWD Lease, Well No. 2 in Oil & Gas Dockets 09-0273412, 09-0273982 and 09-0274290 dated March 20, 2012.

Bosque Disposal Systems, LLC has a current approved Form P-5 (Organization Report), a posted \$25,000 financial assurance letter of credit and no pending Commission enforcement actions.

Notice of the amended commercial application was provided to the surface owner and to operators of wells within a one-half mile radius. In accordance with Commission website guidelines, however, notice of the application was not published and neither adjoining surface owners nor the Parker County clerk was notified.

EXAMINERS' OPINION

Statewide Rule 9 requires a commercial disposal well permit applicant to give notice of the application (1) to the surface owner of the well site tract, (2) to the operator of each well within one-half mile of the disposal well, (3) to the county clerk and (4) to the surface owners of adjoining tracts. In addition, notice must be published in a general-circulation newspaper for the county.

In the case at hand, the applicant seeks to increase the injection volume of an existing commercial disposal well. Relying on long-standing Commission guidelines for amending a Rule 9 permit, the applicant neither published notice of the application nor gave notice to the county clerk and adjoining surface owners. The guidelines are published on the Commission's website and a copy of the guidelines is attached as Appendix B.

The guidelines depart from the rule by authorizing a scope of notice for a permit amendment that is significantly narrower than what is required for an original permit. In other words, the guidelines create a notice requirement differential between an original permit and an amended permit that is not present in the as-adopted Rule 9. Applicant will correctly argue that administrative agencies may interpret their own rules. The limit of that interpretive discretion, however, is difficult to predict.

Finally, differing notice standards render the Commission's application process vulnerable to manipulation. For example, it allows an applicant to obtain an original disposal permit with an injection pressure or injection volume so low that it draws no protest, then to amend that permit for a significantly higher rate without notifying the local government or adjoining surface owners or others whose interests could be affected by the increase. To be clear, there is no suggestion of manipulation in the case at hand.

The examiners believe the guidelines are, at least in some cases, inconsistent with the notice provisions of Rule 9. Despite their concerns that notice has not been given in accordance with the literal terms of Rule 9, the examiners acknowledge that the applicant reasonably relied on guidelines published on the Commission's website. Further, there is no pending complaint regarding the sufficiency of notice to affected parties in this case and the requested permit amendment only involves a relatively minor increase in volume. Accordingly, notwithstanding their reservations regarding the adequacy of notice, both examiners conclude that the evidence of record supports granting the pending application.

The examiners recommend approval of the application to increase the permitted injection volume for the existing commercial disposal authority. Approval of the amended application is in the public interest. The Barnett Shale development area for this well encompasses Parker County. Disposal wells are the best means for disposing of produced frac and salt water. Bosque has shown that the increased disposal capacity is necessary to accommodate the increasing Barnett Shale development that is ongoing in this area within hauling distance of Bosque's Bosque SWD Lease, Well No. 1. Several operators are building pipelines to transport produced saltwater to the subject disposal facility. Bosque will be unable to tie into the pipelines and dispose of additional produced saltwater and maintain existing contracted and non contracted customer demand without approving the additional disposal capacity.

There is adequate separation between the top of the injection interval and the base of the Barnett Shale in the well. The base of the Barnett Shale formation is found at a depth of 6,800 feet in the disposal well. The permitted disposal interval top is in the Ellenburger formation at a depth of 8,150 feet. In the Bosque SWD No. 1, the distance

between the top of the permitted disposal interval and the base of the Barnett Shale formation is 1,350 feet. As result, the examiners believe that the increased injection will be contained within the Ellenburger formation and will not pose a threat to the productive Barnett Shale formation.

When the Bosque injection facility is at capacity, saltwater disposal trucks are turned away and have to travel to another facilities located at greater distances requiring additional truck traffic miles to be driven. The proposed increased injection capacity will eliminate the additional mileage traveled on public highways by the saltwater disposal trucks. Additionally, without the increased capacity, Bosque will not be able to accommodate additional produced saltwater to be transported by the pipeline gathering systems currently under construction. Carrying produced salt water by pipeline rather than truck transportation is more economical and reduces the environmental hazards.

The examiners recommend that the application for an amended commercial disposal permit pursuant to Statewide Rule 9 be approved and that the Commission adopt the following Findings of Fact and Conclusions of Law.

FINDINGS OF FACT

1. Notice of this application and hearing was provided to all persons entitled to notice based on the published guidelines attached as Appendix B. Although the applicant did not give notice to an offset operator, entitled to notice, Nabors Completion & Production Service Co., the examiners, by letter dated December 14, 2012, provided a copy of the notice of hearing and the W-14 application to Nabors. The letter gave Nabors Completion & Production Service Co. until December 29, 2012 to protest (15 days). No protest was received by that date.
2. Commercial Permit No. 12552, issued on October 24, 2007 to Bosque Disposal Systems, LLC authorizes Bosque to dispose of 25,000 BWPD into the Ellenburger at a depth of 8,150 feet to 10,000 feet.
3. The Bosque SWD No. 1 is near its authorized disposal capacity. Future projections of disposal demand show the well's capacity will be exceeded when a new pipeline transporting up to 4,000 BWPD will be completed in January or February 2013.
4. The proposed injection capacity increase, from 25,000 BWPD to 30,000 BWPD, into the Bosque SWD No. 1, will not endanger useable quality water.
 - a. The Texas Commission on Environmental Quality ("TCEQ") recommends that usable-quality ground water be protected to a depth of 820 feet below the land surface. The Bosque SWD No. 1 has 9 5/8" surface casing that is set at 996 feet and is cemented to the surface with 425 sacks of cement.

- b. There are four producing Barnett Shale horizontal wells, two plugged gas wells and one injection well located within a ½ mile radius of review of the Bosque SWD No. 1. All of the wells have surface casing set and cemented to surface below the usable quality water.
- 5. The proposed injection capacity increase into the Bosque SWD No. 1, will not endanger production from other oil, gas or mineral bearing formations.
 - a. The Bosque SWD No. 1 has 7" production casing is set at 8,755 feet and is cemented to a depth of 6,500 feet with 268 sacks of cement.
 - b. The well is equipped with 4 ½" tubing with a packer set at 8,062 feet.
 - c. The base of the Barnett Shale formation is at 6,800 feet. The permitted disposal interval is the Ellenburger formation between 8,150 feet and 10,000 feet, which is almost 1,350 feet below the base of the Barnett Shale formation.
- 6. Amending the commercial disposal permit for the subject disposal well, is in the public interest because it will provide needed commercial disposal capacity to accommodate the Barnett Shale development that is ongoing in the area of the facility.
 - a. The Barnett Shale development area encompasses Parker County.
 - b. When the Bosque injection facility is at capacity, saltwater disposal trucks have to travel to another facilities located at greater distances requiring additional truck traffic miles to be driven. The proposed increased injection capacity will eliminate the additional mileage traveled on public highways by the saltwater disposal trucks.
 - c. Without the increased capacity, Bosque will not be able to accommodate future produced saltwater to be transported by the pipeline gathering system currently under construction. It is more favorable to carry produced salt water by pipeline over truck transportation.
- 7. The Commission has previously approved increasing the disposal capacity of numerous disposal wells in the Newark, East (Barnett Shale) Field from 25,000 to 30,000 BWPD in the past.
 - a. The wells include the Metro SWD Lease, Well No. 1 by Order issued in Oil & Gas Docket 09-0268543 dated July 26, 2011.

- b. Bosque's Rose Lease, Well No. 1, in Oil & Gas Docket 09-0273412, issued on March 20, 2012.
 - c. Bosque's Luna Lease, Well No. 2, in Oil & Gas Docket 09-0273982, issued on March 20, 2012.
 - d. Bosque's Sophia SWD Lease, Well No. 2, in Oil & Gas Docket 09-0274290, issued on March 20, 2012.
8. Bosque Disposal Systems, LLC has a current approved Form P-5 (Organization Report), a posted \$25,000 financial assurance letter of credit and no pending Commission enforcement actions.

CONCLUSIONS OF LAW

- 1. Proper notice was issued in accordance with the applicable statutory and regulatory requirements.
- 2. All things necessary to give the Railroad Commission jurisdiction to consider this matter have occurred.
- 3. Approval of the application will not harm useable quality water resources, will not endanger oil, gas, or geothermal resources, will promote further development in the area of Parker County and is in the public interest pursuant to Sec. 27.051 of the Texas Water Code.
- 4. Bosque Disposal Systems, LLC has met its burden of proof and its application satisfies the requirements of Chapter 27 of the Texas Water Code and the Railroad Commission's Statewide Rule 9.

EXAMINERS' RECOMMENDATION

Based on the above findings of fact and conclusions of law, the examiners recommend that the amended applications of Bosque Disposal Systems, LLC for increased disposal authority in its Bosque SWD Lease, Well No. 1, be approved, as set out in the attached Final Order.

Respectfully submitted,



Andres J. Trevino, P.E.
Technical Examiner



Terry Johnson
Legal Examiner